

The following corrections(s) in the specification are presented, without prejudice, in marked-up version, under Rule 1.121 (b) (1) (ii).

Beginning on line 36 of Page 1 and continuing through line 5 on Page 3 of the application - note: this is page 2 in actuality : - -

The bean bag ammunition technology to date has continued to advance in kind and degree for achieving a perfected goal, however, actual practice, experience, and technology in seeking perfected protection in its various formats, indicated in some of the above noted patents, has not yet been attained, as the problems of poor stabilization of the ammunition in flight, poor accuracy in the line of flight to the target, and poor material which continues to break sometimes spewing its shot randomly, thus hindering an efficacious effectiveness at the target, remain.

c) Need For The Invention

The need remains to perfect a less-lethal projectile in a fuller sense, namely, one which would stun or effectively incapacitate a living being without killing or seriously injuring such being. With a human being who would be clothed in kind and degree, this invention advantageously approaches such criteria in its operation of striking a human being.

Summary Of The Invention

This invention is directed to a perfected less-lethal ammunition suitable for installation in a cartridge or shell of a projectile found in a gun or weapon, such as a conventional handgun, such as for example, in a 12-gauge shotgun and in the process by which it is formed. The ammunition for the projectile takes a product form commonly

referred to as a "bean bag", and has a frontal compartment or chamber contiguous to its nose, pre-measured weighted pellets contained in and substantially filling the compartment sized for the weighted pellets, a flowing structure, providing stability of the bean bag in flight, trailing but separated from the compartment by a fastening device for the bean bag, and a peripheral curl or roll at the edge of the open end of the flowing structure which provides accuracy in the flight of the bean bag to its target after being propelled from its weapon or gun. The bean bag is formed from a tubular open-ended sleeve of non-frangible, non-ruptureable, material which in its fabric construction of the bean bag does not break upon impact on a target, while efficaciously effecting a mushrooming shape upon such impact, thus preventing penetration, killing or seriously injuring a living target or another person. The tubular sleeve's length is determined by the weight of the fabric of the tubular sleeve rather than by its length. The bean bag's weight of the total pellets to be contained in substantially filling the compartment is determined by weight of their total number and not the number itself disposed in the compartment. Subsequent to the fastening between the compartment's body and the flowing structure that trails behind the compartment's body, a peripheral curl or roll is formed around and at the open end of the trailing structure for providing accuracy towards a target during flight of the bean bag. - - .

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At Page 6, beginning at the paragraph on its line 21 and ending on line 35, Page 8 of the application: - -

Referring now to the accompanying drawing FIGURES wherein reference characters correspond to like numeral hereinafter, FIG. 1 illustrates an embodiment of the bean bag 15 used in a less-lethal projectile of this invention. Bean bag 15 in its generated product form is of a fully tubular construction of a non-frangible, non-ruptureable nature which upon impact in its use with its target re-configures its frontal portion 16 into a mushroom configuration upon impact, one which does not kill or seriously injure a living target when hit by the bean bag 15. Bean bag 15 is formed by a double layer of material that captures within its formed chamber or compartment 22, FIGS. 1, 5, a pre-measured weight of lead shot or pellets 23, FIG. 4, the compartment 22 being separate or apart from a flowing structure 24 that stabilizes the flight of projectile 15 towards its target in the operation of the invention.

This invention is directed to a perfected less-lethal ammunition suitable for installation in a cartridge or shell of a projectile found in guns, such as a conventional handgun, such as for example, in a 12-gauge shotgun and in the process by which it is formed. The ammunition for the projectile takes a product form commonly referred to known as a "bean bag " 15, and has a frontal compartment 22, FIG. 1, or chamber contiguous to its nose, pre-measured weighted pellets 23, FIG. 4, contained in and substantially filling the compartment 22, a flowing structure 24, FIGS. 1, 5, providing stability of the bean bag 15 in flight, trailing but separated from the compartment 22 by a fastening device 24, and a peripheral inwardly-turned curl or roll 25, FIGS. 1, 5, at the edge of the open end of the flowing structure 24 which provides accuracy in the flight of the bean bag 15 to its target after being propelled from its weapon or gun. The bean bag 15 is formed from a tubular open-ended sleeve of non-frangible, non-ruptureable, material which in its fabric construction of the bean bag 15 does not break upon impact on a target, while effecting a mushrooming shape upon such impact, thus preventing penetration, killing or seriously bean bag 15's weight of the total pellets 23 to be contained in substantially filling the

compartment 22 is determined by weight of their total number and not the number itself body and the flowing structure 24 that trails behind the compartment 22's body, a the peripheral curl or roll 25 is formed around and at the open end of the trailing structure 24 for providing accuracy towards a target during flight of the bean bag 15.

In the formation of the bean bag 15, the already determined length 26, FIG. 2, by weight of the open-ended sleeved material 27, is slipped over a mandrel 28, FIGS. 4, 6, such as a hollow plastic tube firmly supported in a fixed support base or receptacle 29, to the extent of an indicium 31 marked at a level about the mandrel or tube 28 27. The indicium 31 signals the position of the open end of a shorter portion ~~32~~ 33, FIG. 2, of the sleeve 27 ~~—, which that~~ forms the compartment 22's body, and in which the weighted shot is to be contained. A strong suitably knotted cord 34-1 ~~34~~, FIG. 2, or the like, closes off and separates this shorter portion from the remainder or longer portion 36 of sleeve 27 adjacent to its ~~at the~~ end of the mandrel 28 on to which the sleeve is first introduced. The remainder 36 of the sleeve adjacent to its ~~above such~~ end of the mandrel 28, which has been generated in sleeve 27 by means of the location of the indicium 31 on the mandrel 28 as being longer than the length of the shorter portion 33, is then lapped or doubled back over the shorter portion 33 to its fullest extent, i.e., being contiguous to the material at the closed-off level at the mandrel 28's end and about the entire shorter portion 33 itself, extending at ~~extending at~~ its other end beyond or below the indicium 31 on the tube, as illustrated in FIG. 3, thus beyond the open end of the shorter portion 33, thereby forming the flowing structure 24, FIG. 1, for the bean bag 15, over that of the shorter portion 33. The tube and sleeve at this point of assembly is removed from mandrel 28's support base 29 and turned or inverted so that a measured weight of pellets 23, such as shotgun lead pellets, can be introduced into the hollow mandrel or tube 28, such introduction represented by a nozzle 37, FIG. 4, of a shot dispensing machine, identified hereinafter. Pellets 23 extend to the closed-off level of the shorter portion 33 of sleeve 27 still wrapped on the tube, i.e., the bottom of the weighed pellets 23 seat within the tube, proximate to the knotted cord 34-1 ~~34~~ on the outside of the sleeve, and up through the hollowness of tube 28. The mandrel 28 is removed from sleeve 27 and now pellets 23 are housed within the shorter portion 33. The shorter portion 33 of

the constructed fabric's sleeve 27 at this point is placed into the fixed receptacle 29. The top rim 38 of an annulus 39 attached to the inner wall of the receptacle 29 is the indicator for determining the location of ~~a the~~ fastening device 24, such as another cord ~~34~~ 34-2, FIG. 7, or the like to be applied, and which when applied about the outer longer portion 36 of the sleeve determines the size of the compartment 22 that is generated within the interiorly disposed shorter portion 33 and which size satisfies the filling of the compartment 22 to its fullest with the pre-measured weighted shot in front of the fastening device 34-2 24. This is important for effecting the desired result of less-lethal impact upon proper use of the gun or weapon from which the bean bag 15 is propelled. With the fastening together of the interiorly disposed shorter sleeve portion 33 and the longer sleeve portion 36, the longer sleeve portion 36 remains to generate the flowing structure 24 trailing in a fanned-out or cone-like fashion. The peripheral curl or roll 25 then is applied by manually turning inwardly the open end of the trailing portion of the longer portion 36. After the fastening together and the formation of the curl or roll 25 have been completed, the bean bag 15 of this invention has been produced. The curl or roll 25 is now ready for insertion into the open front end of a cartridge or shell of the projectile from which bean bag 15 can subsequently be discharged in the customary manner of actuation of a detonated primer at the rear of the cartridge or shell, namely, detonating the primer to ignite the cartridge's propellant to propel the bean bag 15 from the barrel of its gun or weapon towards its target. The filling of the cartridge at its leading open end with the perfected bean bag 15 after other elements for the cartridge ~~ertridge~~ have been first installed in the cartridge ~~ertridge~~ is accomplished in a conventional manner by customary techniques known in the ammunition industry. - - .

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which it is formed. The ammunition for the projectile takes a product form commonly referred to as a "bean bag", and has a frontal compartment or chamber contiguous to its nose, pre-measured weighted pellets contained in and substantially filling the compartment sized for the weighted pellets, a flowing structure, providing stability of the bean bag in flight, trailing but separated from the compartment by a fastening device for the bean bag, and a peripheral curl or roll at the edge of the open end of the flowing structure which provides accuracy in the flight of the bean bag to its target after being propelled from its weapon or gun. The bean bag is formed from a tubular open-ended sleeve of non-frangible, non-ruptureable, material which in its fabric construction of the bean bag does not break upon impact on a target, while efficaciously effecting a mushrooming shape upon such impact, thus preventing penetration, killing or seriously injuring a living target or another person. The tubular sleeve's length is determined by the weight of the fabric of the tubular sleeve rather than by its length. The bean bag's weight of the total pellets to be contained in substantially filling the compartment is determined by weight of their total number and not the number itself disposed in the compartment. Subsequent to the fastening between the compartment's body and the flowing structure that trails behind the compartment's body, a peripheral curl or roll is formed around and at the open end of the trailing structure for providing accuracy towards a target during flight of the bean bag. - - .

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This invention is directed to a perfected less-lethal ammunition suitable for installation in a cartridge or shell of a projectile found in guns, such as a conventional handgun, such as for example, in a 12-gauge shotgun and in the process by which it is formed. The ammunition for the projectile takes a product form commonly referred to known as a "bean bag " 15, and has a frontal compartment 22, FIG. 1, or chamber contiguous to its nose, pre-measured weighted pellets 23, FIG. 4, contained in and substantially filling the compartment 22, a flowing structure 24, FIGS. 1, 5, providing stability of the bean bag 15 in flight, trailing but separated from the compartment 22 by a fastening device, and a peripheral inwardly-turned curl or roll 25, FIGS. 1, 5, at the edge of the open end of the flowing structure 24 which provides accuracy in the flight of the bean bag 15 to its target after being propelled from its weapon or gun. The bean bag 15 is formed from a tubular open-ended sleeve of non-frangible, non-ruptureable, material which in its fabric construction of the bean bag 15 does not break upon impact on a target, while effecting a mushrooming shape upon such impact, thus preventing penetration, killing or seriously injuring a living target or another person from spewed shot. The tubular sleeve's length is

determined by the weight of the fabric of the tubular sleeve rather than by its length. The bean bag 15's weight of the total pellets 23 to be contained in substantially filling the compartment 22 is determined by weight of their total number and not the number itself disposed in the compartment 22. Subsequent to the fastening between the compartment 22's body and the flowing structure 24 that trails behind the compartment 22's body, a peripheral curl or roll 25 is formed around and at the open end of the trailing structure 24 for providing accuracy towards a target during flight of the bean bag 15.

In the formation of the bean bag 15, the already determined length 26, FIG. 2, by weight of the open-ended sleeved material 27, is slipped over a mandrel 28, FIGS. 4, 6, such as a hollow plastic tube firmly supported in a fixed support base or receptacle 29, to the extent of an indicium 31 marked at a level about the mandrel or tube 28. The indicium 31 signals the position of the open end of a shorter portion 33, FIG. 2, of the sleeve 27 that forms the compartment 22's body, and in which the weighted shot is to be contained. A strong suitably knotted cord 34-1, FIG. 2, or the like, closes off and separates this shorter portion from the remainder or longer portion 36 of sleeve 27 adjacent to its end of the mandrel 28 on to which the sleeve is first introduced. The remainder 36 of the sleeve adjacent to its end of the mandrel 28, which has been generated in sleeve 27 by means of the location of the indicium 31 on the mandrel 28 as being longer than the length of the shorter portion 33, is then lapped or doubled back over the shorter portion 33 to its fullest extent, i.e., being contiguous to the material at the closed-off level at the mandrel 28's end and about the entire shorter portion 33 itself, extending at its other end beyond or below the indicium 31 on the tube, as illustrated in FIG. 3, thus beyond the open end of the shorter portion 33, thereby forming the flowing structure 24, FIG. 1, for the bean bag 15, over that of the shorter portion 33. The tube and sleeve at this point of assembly is removed from mandrel 28's support base 29 and turned or inverted so that a measured weight of pellets 23, such as shotgun lead pellets, can be introduced into the hollow mandrel or tube 28, such introduction represented by a nozzle 37, FIG. 4, of a shot dispensing machine, identified hereinafter. Pellets 23 extend to the closed-off level of the shorter portion 33 of sleeve 27 still wrapped on the tube, i.e., the bottom of the weighed pellets 23 seat within the tube,

proximate to the knotted cord 34-1 on the outside of the sleeve, and up through the hollowness of tube 28. The mandrel 28 is removed from sleeve 27 and now pellets 23 are housed within the shorter portion 33.

The shorter portion 33 of the constructed fabric's sleeve 27 at this point is placed into the fixed receptacle 29. The top rim 38 of an annulus 39 attached to the inner wall of the receptacle 29 is the indicator for determining the location of a fastening device such as another cord 34-2, FIG. 7, or the like to be applied, and which when applied about the outer longer portion 36 of the sleeve determines the size of the compartment 22 that is generated within the interiorly disposed shorter portion 33 and which size satisfies the filling of the compartment 22 to its fullest with the pre-measured weighted shot in front of the fastening device 34-2. This is important for effecting the desired result of less-lethal impact upon proper use of the gun or weapon from which the bean bag 15 is propelled. With the fastening together of the interiorly disposed shorter sleeve portion 33 and the longer sleeve portion 36, the longer sleeve portion 36 remains to generate the flowing structure 24 trailing in a fanned-out or cone-like fashion. The peripheral curl or roll 25 then is applied by manually turning inwardly the open end of the trailing portion of the longer portion 36. After the fastening together and the formation of the curl or roll 25 have been completed, the bean bag 15 of this invention has been produced. The curl or roll 25 is now ready for insertion into the open front end of a cartridge or shell of the projectile from which bean bag 15 can subsequently be discharged in the customary manner of actuation of a detonated primer at the rear of the cartridge or shell, namely, detonating the primer to ignite the cartridge's propellant to propel the bean bag 15 from the barrel of its gun or weapon towards its target. The filling of the cartridge at its leading open end with the perfected bean bag 15 after other elements for the cartridge have been first installed in the cartridge is accomplished in a conventional manner by customary techniques known in the ammunition industry. - - .

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